



SUPER THERM[®]

TECHNICAL SHEET

DESCRIPTION

SUPER THERM is a water-borne combination of high performance aliphatic urethanes, elastomeric acrylics, and resin additives which produces a tough, yet flexible coating film. Designed for performance and durability, SUPER THERM contains 4 unique ceramics to block up to 95% of Solar Heat entering a structure due to Visual Light, Ultra Violet (UV), and Infrared (IR). SUPER THERM is a flexible membrane with low permeability that can greatly reduce expansion and contraction of a roof. It also prevents corrosion and surface deterioration.

TYPICAL USES

- As a one-coat system on exteriors to block the migration of Solar Heat gain. (roofs and side walls)
- As heat repellent system for transportation vehicles, refrigerated containers, reefer trucks, and railroad cars when applied to the exterior
- Exterior application to reduce or eliminate condensation on HVAC systems, tanks, spheres, storage systems, and concrete walls
- As a system over metal, concrete, masonry, and wood to stop moisture penetration and corrosion
- Ability to resist dirt, mold, mildew, and pollution to increase longevity, and reduce surface maintenance
- As a topcoat over metal roofs
- Applied over tent fabrics to provide a heat barrier and remain flexible

APPLICATION METHODS

SUPER THERM can be applied to metal, concrete, masonry and wood. The application can be spray, brush or roller. For specific instructions on surface preparation, mixing and application, please refer to the SPE's application instructions for SUPER THERM. This coating should never be applied at less than 17 mils wet (425 microns), 9.1 mils dry (229 microns), each coat.

All pre-existing surfaces must be well bonded and intact with sufficient slope (at least ¼" to the foot slope, (6,4 cm to the 30 cm)) to eliminate ponding water.

TESTS AND CERTIFICATIONS (partial list)

- Exterior insulation against Solar Radiation
- (Guarded hot box; ASTM C236)
- Blocks 99.5% of infrared / up to 68% sound blockage
- Factory Mutual approval



- ICC-ES Legacy Approval
- UL (Underwriters Laboratory) approved
- Flame Spread Test (ASTM E84; 0 smoke, 0 flame)
- Class "A" Flame Spread
- Marine Approvals: - American Bureau of Shipping; USCG; IMO
- UV & Salt Spray Resistance (ASTM 5894) 5000 hours
- USDA Approved
- Flexibility (ASTM E1737): 180 degree bend – passed
- Adhesion ASTM (D4541): 115.2psi, not suitable for films <5 mils
- Perm Rating (ASTM E96): 8.8 average
- Abrasion Resistance (ASTM D4060): 3,000 cycles
- Resistance to Salt Spray: 2,000 hours
- Resistance to Wind Driven Rain (ASTM E514)
- External fire performance B_{Roof}(t₂) according to ENV 1187-A1 2005 / UNI EN 13501-5

PHYSICAL DATA

- Solids: By weight 70% / By Volume: 60% (+/-2%)
- 30-60 minutes to tack free at 70°F (21°C)
- Overcoat: 2 hours when 70°F (21°C) at 40% Relative Humidity
- Full Cure: 21 days
- Lead and chromate free
- Cures by evaporation
- Weight: 11.72 lbs./gallon
- Vehicle Type: Urethane/Acrylic blend
- Shelf Life: Up to 5 years if unopened under appropriate storage conditions (See SDS).
- VOC Level: 67.2 grams/liter 0.561 gal/lbs
- Viscosity: 105 – 110 KU
- pH: 8.5 – 9.0
- 17 mils (425 microns) wet (8 m²/gal) / 10 mils (250 microns) dry
- Maximum Surface Temperature when applying: 150°F (65°C)
- Minimum Surface Temperature when applying: 40°F (5°C)
- Maximum Surface Temperature after curing: 300°F (149°C)
- Do not apply over 17 mils wet per application. Allow to dry down before adding additional thickness.



SUPERIOR PRODUCTS
EUROPE

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SAFETY PRECAUTIONS

Do not use this product without first taking all appropriate safety measures to prevent property damage and injuries. These measures may include, without limitation: proper ventilation, use of proper lamps, wearing of protective clothing and masks, tenting, and proper separation of application areas. For more specific safety procedures, please refer to the SUPER THERM Safety Data Sheet.

KEEP OUT OF REACH OF CHILDREN.

***LIMITATION OF LIABILITY:** All recommendations or suggestions relating to the use of the products, whether in technical documentation, or in response to a specific enquiry, or otherwise, are based on data which to the best of our knowledge is reliable. The products and information are designed for users having the requisite knowledge and industrial skills, and the end-user has the responsibility to determine the suitability of the product for its intended use. SPE has no control over either the quality of condition of the substrate, or the many factors affecting the use and application of the product. Therefore, SPE does not accept any liability arising from loss, injury, or damage resulting from such use or the contents of this data sheet. The information contained in this data sheet is subject to modification as a result of practical experience and continuous product development. This data sheet replaces and annuls all previous issues and the user has the responsibility to ensure that this sheet is current prior to using the product.*

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